

AMENDMENTS TO THE CLAIMS:

1.-43. (Canceled)

44. (Previously presented) An amperometric sensor suitable for determining the concentration of hydrogen peroxide in a sample, said sensor comprising a ferricyanide compound which, in reduced form, functions as a mediator selective for hydrogen peroxide, wherein the ferricyanide compound is of general formula:



wherein each X is a phosphonium ion of formula $(R^5)(R^6)(R^7)(R^8)P^+$ in which R^5 to R^8 are the same or different alkyl groups containing from 1 to 20 carbon atoms, provided that at least one group R^5 to R^8 contains at least 4 carbon atoms.

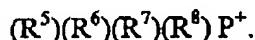
45. (Previously presented) A sensor according to claim 44, further comprising an enzyme which is capable of reacting with an analyte in the sample to produce hydrogen peroxide.

46. (Previously presented) A sensor according to claim 45, wherein the analyte is glucose and the enzyme is glucose oxidase.

47. (Previously presented) A sensor according to claim 44, in which the ferricyanide compound is bound to a polymer.

48. (Previously presented) A sensor according to claim 47, wherein the polymer is a polyacrylamide.

49. (Previously presented) A sensor according to claim 47, wherein the ferricyanide compound is bound to the polymer via one of groups R^5 to R^8 of a quaternary phosphonium ion of formula



50. (Currently amended) A sensor according to claim 44, wherein the ferricyanide compound has a solubility of from 2000 mg/L to 20,000 mg/L in pure water.

51. (Canceled)

52. (Currently amended) A sensor according to ~~claim 51~~ claim 70, wherein the polymer is a polyacrylamide.

53. (Currently amended) A sensor according to ~~claim 51~~ claim 70, further comprising an enzyme which is capable of reacting with an analyte in the sample to produce hydrogen peroxide.

54. (Previously presented) A sensor according to claim 53, wherein the analyte is glucose and the enzyme is glucose oxidase.

55. (Currently amended) A sensor according to ~~claim 51~~ claim 70, wherein the ferricyanide compound is of general formula:



in which the groups X are the same or different and at least one X is a non-metallic ion.

56. (Previously presented) A sensor according to claim 55, in which each X is a quaternary ammonium ion of formula $(R^1)(R^2)(R^3)(R^4) N^+$ in which R^1 to R^4 are the same or different alkyl groups containing from 1 to 20 carbon atoms, provided that at least one of R^1 to R^4 contains at least 4 carbon atoms.

57. (Previously presented) A sensor according to claim 56, wherein the ferricyanide compound is tetrahexylammonium ferricyanide, tetrakisdecylammonium ferricyanide, tetradecyltrimethylammonium ferricyanide, hexadecyltrimethylammonium ferricyanide or trimethyhexylammonium ferricyanide.

58. (Previously presented) A sensor according to claim 55, wherein each X is a phosphonium ion of formula $(R^5)(R^6)(R^7)(R^8) P^+$ in which R^5 to R^8 are the same or different

alkyl groups containing from 1 to 20 carbon atoms, provided that at least one group R^5 to R^8 contains at least 4 carbon atoms.

59. (Previously presented) A sensor according to claim 55, wherein each X is a nitrogen-containing heterocyclic cation.

60. (Previously presented) A sensor according to claim 59, wherein each X is a pyridinium ion.

61. (Currently amended) A sensor according to ~~claim 51~~ claim 70, wherein the ferricyanide compound is bound to the polymer via one of groups R^1 to R^4 of a quaternary ammonium ion of formula



or via one of groups R^5 to R^8 of a quaternary phosphonium ion of formula



or via a nitrogen-containing heterocyclic cation.

62. (Previously presented) A sensor according to claim 50, wherein the ferricyanide compound is polypyridinium ammonium ferricyanide of poly(acrylamide-co-diethyldimethyl ammonium)ferricyanide.

63. (Canceled).

64. (Previously presented) A cartridge for an amperometric sensor suitable for measuring hydrogen peroxide in a sample, which cartridge comprises a ferricyanide compound as defined in claim 44.

65.-66. (Canceled)

67. (Currently Amended) A cartridge for an amperometric sensor suitable for measuring hydrogen peroxide in a sample, which cartridge comprises a ferricyanide compound as defined in ~~claim 51~~ claim 70.

68.-69. (Canceled).

70. (New) An amperometric sensor suitable for determining the concentration of hydrogen peroxide in a sample, said sensor comprising a ferricyanide compound bound to a polymer, which ferricyanide, in reduced form, functions as a mediator selective for hydrogen peroxide, wherein the ferricyanide compound is a ferricyanide compound having a solubility of from 2000 mg/L to 20,000 mg/L in pure water.

71. (New) A cartridge according to claim 64, further comprising an enzyme which is capable of reacting with an analyte in the sample to produce hydrogen peroxide.

72. (New) A cartridge according to claim 71, wherein the enzyme is glucose oxidase.

73. (New) A cartridge to claim 67, further comprising an enzyme which is capable of reacting with an analyte in the sample to produce hydrogen peroxide.

74. (New) A cartridge according to claim 73, wherein the enzyme is glucose oxidase.